

ABSTRACT

The present invention provides a clock extraction apparatus and method for an optical signal. The clock extraction apparatus includes optical branching means, optical filtering means, and clock extraction means. The optical branching means branches an optical signal, which has been transmitted from a transmitting end to a receiving end, into a plurality of optical signals to be transmitted to a plurality of paths. The optical filtering means simultaneously reflects the center wavelength and a specific side peak wavelength of the optical signal, which has been transmitted to a first path of the plurality of paths, to the optical branching means, the specific side peak wavelength being spaced apart from the center wavelength by a clock frequency. The clock extraction means extracts a clock by detecting and bandpass filtering the beating signal from the center wavelength and the specific side peak wavelength reflected to the optical branching means.